



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: Trent 772
 UNIQUE ID NUMBER: 3RR030
 COMBUSTOR: Improved traverse
 ENGINE TYPE: MTF

BYPASS RATIO: 5.0
 PRESSURE RATIO (π_{00}): 35.8
 RATED THRUST (F_{00}) (kN): 316.3

REGULATORY DATA **** DATA SUPERSEDED **** SEE FOLLOWING UID FOR REVISED DATA: **14RR071**

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F ₀₀ (g/kN) or SN	3.2	31.9	65.3	2.6
AS % OF ORIGINAL LIMIT	16.3	27.0	58.5	15.1
AS % OF CAEP/2 LIMIT (NO _x)			73.1	
AS % OF CAEP/4 LIMIT (NO _x)			83.1	
AS % OF CAEP/6 LIMIT (NO _x)			92.5	
AS % OF CAEP/8 LIMIT (NO _x)			105.8	

DATA STATUS

- PRE-REGULATION
 x CERTIFICATION
 - REVISED (SEE REMARKS)

TEST ENGINE STATUS

- NEWLY MANUFACTURED ENGINES
 x DEDICATED ENGINES TO PRODUCTION STANDARD
 - OTHER (SEE REMARKS)

EMISSIONS STATUS

x DATA CORRECTED TO REFERENCE
 (ANNEX 16 VOLUME II)

CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)
 - OUT OF PRODUCTION (DATE: -)
 - OUT OF SERVICE (DATE: -)

MEASURED DATA

MODE	POWER SETTING (%F ₀₀)	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO _x	
TAKE-OFF	100	0.7	3.200	0.00	0.20	34.38	1.9
CLIMB OUT	85	2.2	2.580	0.00	0.16	26.44	2.0
APPROACH	30	4.0	0.850	0.01	0.89	10.30	0.7
IDLE	7	26.0	0.280	1.46	17.94	4.71	0.2
LTO TOTAL FUEL (kg) or EMISSIONS (g)			1116	640	8099	17784	-
NUMBER OF ENGINES				1	1	1	1
NUMBER OF TESTS				3	3	3	3
AVERAGE D _p /F ₀₀ (g/kN) or AVERAGE SN (MAX)				2.1	26.0	56.3	2.0
SIGMA (D _p /F ₀₀ in g/kN, or SN)							
RANGE (D _p /F ₀₀ in g/kN, or SN)				1.74-2.37	24.2-27.4	55-57.4	1.6-2.5

ACCESSORY LOADS

POWER EXTRACTION 0 (kW) AT - POWER SETTINGS
 STAGE BLEED 0 (% CORE FLOW) AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	100.2
TEMPERATURE (K)	287
ABS HUMIDITY (kg/kg)	0.0053-0.0089

FUEL

SPEC	AVTUR
H/C	1.95
AROM (%)	16

MANUFACTURER: Rolls-Royce plc
 TEST ORGANIZATION: Rolls-Royce plc
 TEST LOCATION: SINFIN-Derby
 TEST DATES: 01/09/1994

NO_x REGULATION PARAGRAPH

	2.3.2 c) (CAEP/4)
x	2.3.2 d) (CAEP/6)
	2.3.2 e) (CAEP/8)

REMARKS

1. Data from certification report DNS 19234.
2. Improved traverse combustor.
3. Valid for Trent 772B and Trent 772C.
4. Certification in accordance with Part III, Chapter 2, of Amendment 6 of ICAO Annex 16 Vol. II.
5. NO_x levels in accordance with Part III, Chapter 2, 2.3.2 d) (CAEP/6)

Compliance with Fuel Venting requirements:

- ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)